Montana Department of Environmental Quality
Waste Management and Remediation Division
Waste and Underground Tank Management Bureau
1520 East 6th Avenue
P.O. Box 200901
Helena, Montana 59620-0901

Draft Environmental Assessment
ExxonMobil Billings Refinery
Permit Reissuance

Montana Hazardous Waste Permit Number: MTHWP-17-01

Issued to: ExxonMobil Refining and Supply Company
Billings Refinery
P.O. Box 1163
Billings, MT 59103-1163

Legal Description: Section 25
Township 1 North, Range 26 East
LAT 45.8125 LONG -108.43389
Yellowstone County, Montana

Issued by: Hazardous Waste Section
Waste and Underground Tank Management Bureau
Waste Management and Remediation Division
Montana Department of Environmental Quality

Purpose of the Environmental Assessment
The Montana Department of Environmental Quality (DEQ) is required under the Montana Environmental Policy Act (MEPA) to conduct an environmental assessment (EA) on the proposed permit action described in this document. An EA details all reasonable alternatives to DEQ's action; and outlines the potential impacts to the human environment resulting from DEQ's permitting action and reasonable alternatives to that action.

Based on the impact analysis and professional judgment, DEQ makes a decision on the proposed permit action and summarizes the decision in the EA. If the decision significantly impacts the human environment, a more detailed environmental review, called an environmental impact statement (EIS), must be conducted by DEQ.

Public Comment Period
The public, including interested citizens, DEQ, EPA, other governmental agencies, and the applicant are given an opportunity to review and comment on the draft EA and the proposed permit reissuance. **The comment period will extend from December 1, 2016 through January 20, 2017**.

Copies of the environmental assessment and associated documents (draft permit and fact sheet) are available for review on DEQ's website at http://deq.mt.gov/pubcom.mcpx and at the following locations:

Location Information	*Review Hours*
Montana Department of Environmental Quality **Billings Office** Airport Business Park IP-9 1371 Rimtop Drive Billings, Montana 406-247-4430	Monday through Friday 8:00 am – 5:00 pm
Montana Department of Environmental Quality **Helena Office** Permitting and Compliance Division Waste and Underground Tank Management Bureau Metcalf Building 1520 E. 6th Avenue Helena, Montana 406-444-5300	Monday through Friday 8:00 am – 5:00 pm

All comments must be submitted in writing to Ann Kron, DEQ, Waste Management and Remediation Division, Waste and Underground Tank Management Bureau, P.O. Box 200901, Helena, MT 59620-0901, fax at (406) 444-1374, or e-mail at DEQhazwaste@mt.gov. For additional information please contact Ann Kron at (406)-444-5824 or email at akron@mt.gov. Please see the Fact Sheet for more information on the proposed permit reissuance.

Montana Hazardous Waste Regulations
Rules administering hazardous waste management in Montana are set forth in the Administrative Rules of Montana (ARM), Title 17, Chapter 53, Sub-Chapters 1 through 12. Federal regulations for hazardous waste management are set forth in Title 40 of the Code of Federal Regulations (CFR), Parts 124 and 260 through 279, and are incorporated by reference in ARM. For ease of reading this document, when federal regulations under Title 40 of the CFR have been incorporated by reference into ARM, only the federal citation is used.

Description of Project

DEQ is proposing to reissue a hazardous waste permit to ExxonMobil Refining and Supply Company (ExxonMobil) for its refinery located in Billings, Montana. The proposed reissued permit (MTHWP-17-01) contains requirements for operation of a waste staging area, land treatment unit and associated vehicle decontamination pad; post-closure care for two land treatment units; and continued implementation of facility-wide cleanup of contaminated areas. Hazardous waste permits issued to facilities in Montana are in effect for ten years and must be re-issued or terminated at the end of that period. This proposed permit reissuance would be the third hazardous waste permit issued to ExxonMobil for its refinery (ExxonMobil Billings Refinery).

The ExxonMobil Billings Refinery is an active petroleum refinery located on the southern bank of the Yellowstone River, within an unincorporated area known as Lockwood. The ExxonMobil Billings Refinery currently has four hazardous waste management units described in the table below:

Hazardous Waste Management Unit	General Description	Status
South Land Treatment Unit (SLTU)	A 16 acre landfarm used to degrade hazardous and non-hazardous wastes; also contains a vehicle decontamination pad to wash landfarm vehicles. After the current permit reissuance, only non-hazardous waste will be placed on the landfarm.	Operating
New East Land Treatment Unit (NELTU)	A landfarm formerly used to degrade hazardous and non-hazardous wastes.	Certified Closed and currently in Post-Closure Care
Old East Land Treatment Unit (OELTU)	A landfarm formerly used to degrade hazardous and non-hazardous wastes.	Certified Closed and currently in Post-Closure Care
Waste Staging Area (WSA)	A bermed, concrete pad used to store containers of hazardous waste for greater than 90 days, before shipment to an off-site treatment, storage, and disposal facility	Operating

The State of Montana issued a hazardous waste permit to ExxonMobil in 1988 for regulation of five hazardous waste management units: the SLTU, NELTU, OELTU, WSA, and a Lead Weathering Tank (now closed and not permitted). At the same time, the U.S. Environmental Protection Agency (EPA) issued ExxonMobil a permit under the Hazardous and Solid Waste Amendments to the Federal Resource Conservation and Recovery Act (RCRA). The EPA

permit required that ExxonMobil conduct remedial investigation and cleanup of contaminated areas throughout the facility.

The ExxonMobil Billings Refinery hazardous waste permit was reissued in 1999. DEQ and EPA jointly issued the permit modules pertaining to facility-wide investigation and cleanup. In 2000, DEQ received authorization from EPA to be the sole authority for oversite of the ExxonMobil permit.

In 2008, ExxonMobil submitted an application for a second reissuance of its hazardous waste permit for the ExxonMobil Billings Refinery. The application was submitted within the regulatory timeframe and, after review, deemed complete by DEQ.

Objectives of Proposed DEQ Action

DEQ is charged with administering the provisions of the ARM. The objective of the proposed action is to comply with the ARM provisions pertaining to hazardous waste permits and facility-wide cleanup. DEQ must ensure conditions of a hazardous waste permit are in accordance with ARM and the portions of 40 CFR Part C which are incorporated by reference in ARM. In addition, conditions of the permit must ensure appropriate and compliant management of hazardous waste, as well as implementation of remedial activities that are protective of human health and the environment.

Alternatives Considered

Alternative 1: No Action

The No Action alternative provides a baseline for analyzing other alternatives. Under the No Action alternative, DEQ would deny the ExxonMobil permit application and would not issue hazardous waste permit MTHWP-17-01.

40 CFR 264.101, as incorporated by reference in ARM 17.53.1201, requires that a facility with an operating or post-closure hazardous waste permit must address releases from solid waste management units present at that facility. ExxonMobil has completed site investigation and is currently implementing groundwater remedial activities. The No Action alternative would not comply with the requirement of 40 CFR 264.101. In addition, 40 CFR 270.1(c) requires that owners and operators of hazardous waste management units must have permits during the active life of the unit, including closure and post-closure. ExxonMobil has submitted a timely permit application for reissuance of its hazardous waste permit and has been in substantial compliance with Montana hazardous waste regulations throughout the duration of its two previous permits. ExxonMobil is in compliance with regulations pertaining to a permit application and to general hazardous waste management and disposal; therefore, there is no regulatory cause to deny the ExxonMobil permit application. DEQ has determined the No Action alternative is not reasonable and, therefore, it is not considered further in this EA.

Alternative 2: Proposed action - Reissuance of the hazardous waste operating, post-closure, and corrective action permit

Under this alternative, DEQ would reissue a hazardous waste operating, post-closure, and corrective action permit to ExxonMobil, after considering all comments received during the public comment period. ExxonMobil would continue to store hazardous waste in the WSA;

operate the SLTU and vehicle decontamination pad; continue post-closure care at the OELTU and NELTU; and continue to implement facility-wide corrective action.

ExxonMobil has submitted a timely hazardous waste permit application requesting reissuance of the permit, which DEQ determined to be adequate and complete. ExxonMobil has been in substantial compliance with hazardous waste permit conditions and hazardous waste regulations with regard to the SLTU, NELTU, OELTU, and WSA for duration of the previous two permits.

Stipulations and Controls

The proposed hazardous waste permit contains conditions for proper management, handling, storage, and disposal of hazardous wastes generated by the ExxonMobil Billings Refinery. Plans for emergency preparedness and contingency plans from potential releases from permitted units are also required and are incorporated into the permit. The permitted units are subject to at least annual inspection by staff from the Hazardous Waste Section of DEQ.

For facility-wide corrective action, the ExxonMobil hazardous waste permit requires submission of work plans and progress reports to DEQ for all corrective action activities. Work plans must detail engineering requirements for treatment technologies and monitoring well installation, safety procedures, and quality assurance for sampling and analysis. Progress reports include evaluation of progress towards meeting cleanup standards, as well as the efficacy of any remedial action at the facility. All work plans and reports will be subject to DEQ's review and approval.

Non-compliance with permit conditions and/or hazardous waste regulations is subject to enforcement by DEQ.

Analysis of Regulatory Impacts on Private Property Rights

A Private Property Assessment Act Checklist was completed for DEQ's proposed action of permit reissuance and is on file at DEQ.

Summary of Impacts

Potential human environmental impacts from implementation of Alternative 2 is rated in Tables 1 and 2. The human environment includes those attributes, such as biological, physical, social, economic, cultural, and aesthetic factors, that interrelate to form the environment. Impacts may be adverse, beneficial, or both. The following criteria are used to rate the impacts:

- The severity, duration, geographic extent, and frequency of occurrence;
- The probability the impact will occur if the proposed action occurs;
- Growth-inducing or growth-inhibiting aspects of the impact;
- The quantity and quality of each environmental resource or value effected;
- The importance to the state and society of each environmental resource or value effected;
- Any precedent set as a result of an impact from the proposed action that would commit DEQ to future actions with significant impacts or a decision in principle about such future actions; and
- Potential conflict with local, state, or federal laws, requirements, or formal plans.

The following are definitions for major, moderate, minor, none, and unknown impacts on the human environment:

Major: A significant change from the present conditions of the human environment. Major impacts are serious enough to warrant preparing an environmental impact statement (EIS).

Moderate: Not a major or minor change from the present condition of the human environment. A single moderate impact may not warrant preparing an EIS; however, when considered with other impacts, an EIS may be required.

Minor: A slight change from the present condition of the human environment. Minor impacts are not serious enough to warrant preparing an EIS.

None: No change from the present conditions of the human environment.

Unknown: An EIS must be conducted to determine the effects on the human environment if impacts are unknown.

Table 1. Potential Impacts on Physical and Biological Environment
Alternative 2: ✶

Resources		Major	Moderate	Minor	None	Unknown	Discussion Attached
A.	Air Quality			✶			●
B.	Water Quality, Quantity, and Distribution			✶			●
C.	Geology and Soil Quality, Stability, and Moisture			✶			●
D.	Historical and Archaeological Sites				✶		
E.	Aesthetics				✶		
F.	Terrestrial and Aquatic Life and Habitats				✶		
G.	Vegetation Cover, Quantity, and Quality			✶			●
H.	Unique, Endangered, Fragile, or Limited Environmental Resources				✶		
I.	Demands on Environmental Resource of Water, Air, and Energy				✶		
J	Sage Grouse Executive Order				✶		●
K.	Cumulative and Secondary Impacts				✶		

Description of Potential Impacts on Physical and Biological Environment

A. Air Quality

Impacts to air quality are anticipated to be minor. The permit requires control of dust and odor at the SLTU, including avoiding land application during high winds. Upon closure of the SLTU, a protective cover will be established which will minimize airborne dispersal of soil from the unit. The OELTU and NELTU have a vegetative protective cover over each unit, which is expected to prevent any impacts to air quality. The permit requires containers at the WSA be closed at all times except when adding wastes, thus minimizing releases of volatile organic compounds and odors.

B. Water Quality, Quantity, and Distribution

Through the established groundwater corrective action program, as required in the current permit and the proposed permit reissuance, groundwater will continue to be closely monitored to ensure groundwater is not further degraded on-site and ensure groundwater contamination is prevented from migrating to the Yellowstone River. Remediation activities are in place to reduce subsurface free-phase hydrocarbon mass and dissolved-phase hydrocarbon plumes. Therefore, the effects of both water quality and distribution is positive.

C. Geology and Soil Quality, Stability, and Moisture

For the OELTU and NELTU, a vegetative cap must be maintained as part of the post-closure care requirements. For the SLTU, requirements in the permit address measures to control soil pH, nutrients, soil moisture, and control of wind dispersal. At the time of closure, a protective cover is required to ensure proper soil stability. Therefore, impacts of Alternative 2 to soil quality, stability, and moisture would be minor.

G. Vegetation Cover, Quantity, and Quality

A vegetative cap on the OELTU and NELTU must be maintained as part of the post-closure care requirements. The vegetative cap is required to consist of native plants and grasses, and weed control must be managed. For the SLTU, a vegetative cover is not present, nor required, during operating status. During closure and post-closure status, a protective cover is required to be placed on the SLTU. Impacts of Alternative 2 to soil quality, stability, and moisture would be minor.

J**. Sage Grouse Executive Order**

The ExxonMobil Billings Refinery is not located in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: https://sagegrouse.mt.gov. In addition, the ExxonMobil permit application was received by DEQ prior to passing of Senate Bill 261 and implementation of Executive Orders 10-2014 and 12-2015.

Table 2. Potential Impacts on Social, Economic, and Cultural Environment
Alternative 2 – ▪
Alternative 3 – ✶

Resources		Major	Moderate	Minor	None	Unknown	Discussion Attached
A.	Social Structures and Mores				✶		
B.	Cultural Uniqueness and Diversity				✶		
C.	Local and State Tax Base and Tax Revenue			✶			●
D.	Agricultural or Industrial Production				✶		
E.	Human Health				✶		
F.	Access to and Quality of Recreational and Wilderness Activities				✶		
G.	Quantity and Distribution of Employment				✶		
H.	Distribution of Population				✶		
I.	Demands for Governmental Services			✶			●
J.	Industrial and Commercial Activity			✶			●
K.	Locally Adopted Environmental Plans and Goals			✶			●
L.	Cumulative and Secondary Impacts				✶		

Description of Potential Impacts on Social, Economic, and Cultural Environment

C. Local and State Tax Base and Tax Revenue

Impacts on local and state tax base and tax revenue will not increase from those generated by the current permit. Monitoring of contamination in groundwater is expected to be required indefinitely at the refinery site, which may limit future uses of the property. Permit-required land use controls, including deed restrictions, survey plat notations, and restrictive covenants would restrict land use to industrial purposes only. These limitations may have a negative effect on local and state tax base and revenue. However, because the refinery property has been zoned industrial, and the restrictions will allow industrial use, these future impacts are considered to be minor.

I. Demands for Governmental Services

A permit would require submittal of work plans, reports, and completion certification documentation for corrective action activities, and closure/post-closure work plans and certifications for the SLTU. These submittals would be reviewed by DEQ. In addition, staff of DEQ's Hazardous Waste Section would, at times, conduct inspections of corrective action activities. Therefore, a minor impact to government services is anticipated.

A minimum of annual inspections of the hazardous units by staff of DEQ's Hazardous Waste Section are required by a Performance Partnership Agreement between EPA and DEQ. The inspections would result in resources spent on staff time for inspections, report writing, and enforcement activities, if necessary. Therefore, a minor impact to government services is anticipated.

J. Industrial and Commercial Activity

Impacts on industrial and commercial activity would be the same as impacts from the previous ExxonMobil hazardous waste permit. ExxonMobil hires environmental consulting firms to implement the remedy, sampling, technical evaluations, and work plan and report development for remedial activities. Samples for analytical evaluation would continue to be sent to an external analytical laboratory for analysis. A minor beneficial impact is anticipated for industrial and commercial activity.

K. Locally Adopted Environmental Plans and Goals

Corrective action requirements include requirements to maintain institutional measures to control or prevent present and future on-site use and access to contaminated soil and groundwater. Institutional controls prohibit current and future use of groundwater and restrict land use of contaminated areas on the ExxonMobil site. Maintaining the current institutional controls are expected to have minor impacts on local environmental plans and goals.

Individuals or Groups Contributing to EA

Montana Department of Environmental Quality

Draft EA Prepared

Ann Kron
December 2016

Recommendation

Based on the EA analysis, impacts of Alternative 2 on Physical and Biological Environment, and Social, Economic, and Cultural Environment are minor. Based on the EA analysis, regulatory requirements, and professional judgment, DEQ recommends Alternative 2, re-issuance of an operating, post-closure, and corrective action hazardous waste permit. DEQ will take into account all comments received during the public comment period before finalizing its decision.

The EA analysis demonstrates that this state action will not be a major action significantly affecting the quality of the human environment. Therefore, the EA is an adequate level of environmental review and an EIS is not required.